**DERWENT-ACC-** 1999-262453

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TITLE:

Nonwoven materials of fluorocarbon polymers used in e.g.

filters and fabrics

PATENT-ASSIGNEE: ANONYMOUS [ANON]

PRIORITY-DATA: 1999RD-0420013 (March 20, 1999)

PATENT-FAMILY:

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INT-CL (IPC): C08F000/00, D04H000/00

ABSTRACTED-PUB-NO: RD 420013A

## **BASIC-ABSTRACT:**

Dyneon (TM) THV (terpolymer of tetrafluoroethylene, hexafluoropropylene, and vinylidene fluoride) and Dyneon (TM) HTE (terpolymer of hexafluoropropylene, tetrafluoroethylene, and ethylene) with an MFI (melt flow index)between about 100 and 500 and higher g/10 min (ASTM D1238, 265deg.C/5kg) may be formed into nonwoven materials such as filters, fabrics, etc. Of particular interest are the excellent chemical resistance, thermal resistance and electrical properties of these high performance fluoropolymers. They have superior processability and can be fabricated at lower temperatures compared with existing higher melting point fluoropolymers such as PVDF, ECTFE, FEP, PFA and ETFE. Dyneon (TM) THV and Dyneon(TM) HTE

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can be utilised in a variety of applications such as tubing, film, coatings, etc. By raising the melt flow index(thereby lowering the average molecular weight and consequently lowering the viscosity), THV and HTE combine excellent chemical resistance properties and superior processing characteristics ina material that can be meltblown, spun bonded, and formed by known nonwoven production processes into a uniform, fibrous web. Either of these two materials may alternatively be blended with hydrocarbon resins (such as polyester, nylon or polyolefins) and then formed by a known process into a nonwoven material. The composition of these fluorocarbon thermoplastics can also be varied to control various mechanical and physical properties such as melt temperature, flexural modulus, tensile strength, chemical resistance, etc. Applications of the materials include <u>fil</u>ters for a variety of applications i.e.fuel filters, purification filters, dust collection bag filters, filter cloths, etc.), felt or the paper industry, fabrics, multi-filaments, staple fibers, electronically transmissive composites (used, for example, as coverings for protection), felt background for filters, textiles, knitted articles, nonwoven webs, nappies, garments, battery separators, masks, membranes, synthetic papers, industrial fabrics, fleece, ultrafiltration, protective clothing, packing for seals and geotextiles, reinforcement fabric, lab coats, rain coats, waterproof covers, wipers, and many other nonwoven products.

TITLE-TERMS: NONWOVEN MATERIAL FLUOROCARBON POLYMER FILTER FABRIC

**DERWENT-CLASS:** A14 D22 F04 J01 L03 X16

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